

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Judith M. VANDEWINCKEL et al.

Group Art Unit: 1756

Application No.: 10/743,097

Examiner: C. RODEE

Filed: December 23, 2003

Docket No.: 117545

For: EMULSION AGGREGATION TONER HAVING RHEOLOGICAL AND FLOW PROPERTIES

REQUEST FOR RECONSIDERATION AFTER FINAL REJECTION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In reply to the March 31, 2006 Office Action, reconsideration of the rejections is respectfully requested in light of the following remarks and attached Rule 132 Declaration.

Claims 1-19 are pending in this application.

The courtesies extended to Applicants' representative by Examiner RoDee at the interview held May 2, 2006 are appreciated. The reasons presented at the interview as warranting favorable action are incorporated into the remarks below and constitute Applicants' record of the interview.

Entry of the Rule 132 Declaration is proper under 37 CFR §1.116 since the declaration: (a) places the application in condition for allowance (for the reasons discussed herein); (b) does not raise any new issue requiring further search and/or consideration (as the statements in the declaration amplify issues previously discussed throughout prosecution); and (c) places the application in better form for appeal, should an appeal be necessary. The

declaration is necessary and was not earlier presented because it is made in response to arguments raised in the final rejection. Entry of the declaration is thus respectfully requested.

Reconsideration of the application is respectfully requested in view of the following remarks and the attached Rule 132 Declaration.

I. Rejection Under 35 U.S.C. §112, second paragraph

Claims 1-19 are rejected under 35 U.S.C. §112, second paragraph as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

Claim 1 recites a toner that includes toner particles including a styrene acrylate binder and at least one colorant, where the styrene acrylate binder has a weight average molecular weight of about 20 to about 30 kpse and a molecular peak of about 23 to about 28 kpse, the toner particles have a weight average molecular weight of about 28 to about 130 kpse, a number average molecular weight of about 9 to about 13.4 kpse and a MWD of about 2.2 to about 10, and the toner particles have a cohesion of about 55 to about 98% at a mean circularity of about 0.94 to about 0.98.

The Patent Office asserts that the specification does not describe the manner of determining the cohesion value with sufficient particularity so that the artisan would be reasonably apprised of the claimed "cohesion" value, and as a result alleges the claimed cohesion is indefinite. Applicants disagree.

The present application clearly discloses the method of measuring for the cohesion value of claim 1. Specifically, at paragraph [0034], the specification discloses using a powder tester device with the known amount of toner being 2 grams, the screen sizes being 53 microns, 45 microns and 38 microns in order from top to bottom, and the amount of time

being 115 seconds at a 1 millimeter amplitude vibration. Therefore, the method of measuring for the cohesion value is specifically disclosed in the specification.

The Patent Office asserts that the specification fails to provide a reasonable manner of determining how much of the toner needs to be retained on any one, all or some combination of screens in order to obtain a cohesion value of about 55% to about 98%.

Applicants submit that the calculation for cohesion from the results of the above-described measurement is well known in the art. Filed herewith is a Declaration under 37 CFR §1.132 outlining the method and calculation of the cohesion value. In particular, it is well known to use the cohesion equation with a three screen Hosokawa Powder Test method, including with the screen sizes according to the present application. As summarized in the Rule 132 Declaration, the cohesion equation, as known in the art, is used with a variation of screen sizes to calculate the cohesion value. Thus, as discussed in the interview and stated in the Declaration, U.S. Patents Nos. 6,673,501 and 6,150,062, the Hosokawa Powder Tester Manual and R. Veregin and R. Bartha, Proceedings of IS&T 14th International Congress on Advances in Non-Impact Printing Technologies, page 358-361, 1998, Toronto describe calculating cohesion by the use of the equation cohesion = 50A + 30B + 10C, where A is the mass of toner remaining on the top screen, B is the mass of the toner remaining on the middle screen, and C is the mass of the toner remaining on the bottom screen (see col. 48, lines 21-44 of the 501 Patent, column 22, lines 53-60 of the 062 Patent, section 3, paragraph 2 of the Declaration and page 358 of the R. Veregin article).

During the interview, the Examiner questioned the applicability of this known calculation to the present application, for example because different screen sizes from those used in the 501 Patent are described. First, as known in the art, a cohesion value of 100% corresponds to all of the toner remaining on the top screen at the end of the vibration step,

i.e., no flowability. As discussed in the Declaration and in paragraph 34 of the present specification, the only way to get a 100% value with this result is by use of the 50A equation. For example, when all 2 grams of the toner remain on the top screen, the calculation becomes cohesion = $50(2) + 30(0) + 10(0)$, or 100%. 50A thus must be used to obtain the disclosed 100% cohesion value. Such confirms use and applicability of the known equation to cohesion, as described in the Declaration and claimed in the present application. In other words, from this description one of ordinary skill in the art would understand "50 x A" was used to get the 100% cohesion value when all toner remains on the top screen, and thus that the conventional $50A + 30B + 10C$ equation was being used. Therefore, the specification indicates that the cohesion value of the present application is calculated using the well known equation.

Further, as discussed in the Declaration, practitioners in the art recognize the use of this equation with a variation of different screen sizes. As suggested by the Examiner during the interview, additional reference U.S. Patent No. 6,150,062 is being submitted to the Patent Office in the form of an Information Disclosure Statement (IDS). U.S. Patent No. 6,150,062 describes the use of sieves of 45 μm mesh size, 38 μm mesh size, and 26 μm mesh size in which 2 grams of a toner is loaded onto the top 45 μm sieve and a 1 mm vibration is given for 90 seconds, after which the toner of each sieve is weighted and each weight is multiplied by 0.5, 0.3 and 0.1 in order of heaviness, and the values obtained are then multiplied by 100 (see col. 22, lines 53-60). This is the same as the $50A + 30B + 10C$ calculation. Therefore, the use of this equation with variations of the screen sizes and processing conditions, relative to toner being evaluated, are well recognized in the art.

Applicants submit that in view of the foregoing evidence, including the evidence attested to by a named inventor in the Declaration, claims 1-19 are definite. Reconsideration and withdrawal of the rejection are respectfully submitted.

II. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-19 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Date: June 29, 2006

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